

IN THE CLAIMS:

Please AMEND claims 1, 5-7, 9-20, 22, and 24-25; and

Please ADD claim 30, as set forth below.

1. (Currently Amended) A system, configured to:
perform ~~for~~ cluster management ~~that allows to enable~~ the configuration and monitoring of a cluster from a single-point,
the system comprising:
 - a network interface configured to communicate with nodes in the cluster;
 - a memory configured to store information relating to cluster management;
 - a configuration subsystem coupled to a remote management broker, wherein the remote management broker is configured to distribute information between the nodes in the cluster; and
 - a processor configured to:
 - access the cluster from the single-point;
 - obtain information relating to devices within the cluster;
 - present the information to a user; and
 - determine network management (NM) operations to perform to the cluster;
 - perform the determined NM network management operations; and

determine ~~if whether~~ the ~~NM~~network management operations on the cluster were applied correctly, and ~~if when the network management operations were not applied correctly~~, roll back to a successful configuration.

2. (Previously Presented) The system of Claim 1, wherein the processor is configured to provide a command line interface that is configured to access the cluster.

3. (Previously Presented) The system of Claim 1, wherein the processor is configured to provide a graphical user interface that is configured to access the cluster.

4. (Original) The system of Claim 1, further comprising:
an aggregator configured to aggregate data relating to the devices within the cluster.

5. (Currently Amended) The system of Claim 1, wherein the ~~RMB~~remote management broker further comprises:

a secure transport configured to transport messages;

~~ana~~ RMBremote management broker server coupled to the secure transport; and

~~ana~~ RMBremote management broker client coupled to the secure transport.

6. (Currently Amended) The system of claim 1, wherein the ~~RMB~~remote management broker is further configured to collect attributes from the ~~Configuration~~configuration Subsystem~~subsystem~~.

7. (Currently Amended) The system of Claim 1, wherein the messages include a header ~~which~~that is configured to authenticate the messages.

8. (Original) The system of Claim 7, wherein the header includes a message authentication code that acts as a shared secret within the cluster and a magic field that identifies the message as a remote management broker message.

9. (Currently Amended) A method, comprising: ~~for~~
providing cluster management ~~that allows to enable~~ the configuration and
monitoring of a cluster from a single-point,

the providing cluster management comprising:

accessing the cluster from the single-point;

obtaining attributes relating to devices within the cluster;

receiving input from a user relating to the attributes;

determining network management (NM)-operations to perform on the cluster
based on the received input;

performing the determined ~~NM~~network management operations on the cluster;
and

determining ~~if whether~~ the ~~NM~~network management operations on the cluster
were applied correctly, and ~~if~~ when the network management operations were not applied
correctly, rolling back to a successful configuration.

10. (Currently Amended) The method of Claim 9, further comprising:
applying a configuration lock that is intended to prevent other applications from
performing ~~NM~~network management operations on the devices within the cluster.

11. (Currently Amended) The method of Claim 9, wherein the providing cluster
management from the single-point comprises providing cluster management from the
single-point is a selected from one of a command line interface and or a graphical user
interface.

12. (Currently Amended) The method of Claim 11, further comprising:
distributing information between the nodes in the cluster using a remote
management broker.

13. (Currently Amended) The method of Claim 12, wherein the performing the determined NMnetwork management operations on the cluster further comprises distributing the NMnetwork management operations to each of the devices.

14. (Currently Amended) The method of Claim 12, further comprising:
determining ~~if whether~~ the NMnetwork management operations on the cluster were performed correctly, and ~~if when the network management operations were not performed correctly~~, rolling back to a successful configuration.

15. (Currently Amended) The method of Claim 12, further comprising:
utilizing a header ~~which~~that is configured to authenticate the messages.

16. (Currently Amended) The method of Claim 9, further comprising:
applying a configuration lock that is intended to prevent other applications from performing NMnetwork management operations on the devices within the cluster during a predetermined time; and
releasing the configuration lock after the NMnetwork management operations are performed.

17. (Currently Amended) The method of Claim 9, further comprising:

aggregating data relating to the devices within the cluster on a single device within the cluster.

18. (Currently Amended) A computer readable storage medium comprising instructions for causing a computer to perform:

- obtaining attributes relating to devices within a cluster from a single-point;
- receiving input relating to the attributes;
- determining network management (~~NM~~) operations to perform on the cluster based on the received input;
- distributing the ~~NM~~network management operations to the devices within the cluster;
- applying the ~~NM~~network management operations; and
- determining ~~if whether~~ the ~~NM~~network management operations on the cluster were applied correctly, and ~~if when the network management operations were not applied correctly~~, rolling back to a successful configuration.

19. (Currently Amended) The computer readable storage medium of Claim 18, further comprising instructions for causing a computer to perform:

- applying a configuration lock that is intended to prevent other applications from performing ~~NM~~network management operations on the devices within the cluster during a predetermined time.

20. (Currently Amended) The computer readable storage medium of Claim 18, wherein receiving the input further comprises at least one of utilizing a command line interface ~~and or utilizing~~ a graphical user interface.

21. (Canceled)

22. (Currently Amended) The computer readable storage medium of Claim 18, further comprising instructions for causing a computer to perform:
providing a header ~~which~~that is configured to help in authenticating the messages.

23. (Previously Presented) The computer readable storage medium of Claim 18, further comprising instructions for causing a computer to perform:
aggregating data relating to the devices within the cluster on a single device within the cluster.

24. (Currently Amended) ~~An~~ A cluster management apparatus ~~for cluster management~~, comprising:
means for obtaining attributes relating to devices within a cluster from a single-point;
means for receiving input relating to the attributes;

means for determining network management (~~NM~~) operations to perform on the cluster based on the received input;

means for distributing the ~~NM~~network management operations to the devices within the cluster;

means for applying the ~~NM~~network management operations to the devices within the cluster; and

means for determining ~~if~~whether the network management operations on the cluster were applied correctly, and ~~if~~when the network management operations on the cluster were not applied correctly, rolling back to a successful configuration.

25. (Currently Amended) The apparatus of Claim 24, further comprising:

means for applying a configuration lock that is intended to prevent other applications from performing ~~NM~~network management operations on the devices within the cluster during a predetermined time.

26. (Canceled)

27. (Previously Presented) The system of Claim 8, wherein the message authentication code is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.

28. (Previously Presented) The method of Claim 15, wherein the header comprises a message authentication code that is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.

29. (Previously Presented) The computer readable storage medium of Claim 22, wherein the header comprises a message authentication code that is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.

30. (New) A system, comprising:

- means for performing cluster management to enable configuration and monitoring of a cluster from a single-point,
- the means for performing cluster management comprising:
 - network interface means for communicating with nodes in the cluster;
 - memory means for storing information relating to cluster management;
 - subsystem means for configuring, coupled to remote management broker means for distributing information between the nodes in the cluster; and
 - processor means for
 - accessing the cluster from the single-point;
 - obtaining information relating to devices within the cluster;
 - presenting the information to a user;

determining network management operations to perform to the cluster;
performing the determined network management operations; and
determining whether the network management operations on the cluster
were applied correctly, and when the network management operations were not applied
correctly, rolling back to a successful configuration.